UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,372	01/16/2001	David F. Mchale	550-200	1910

7590 10/20/2004

NIXON & VANDERHYE P.C.
8th Floor
1100 North Glebe Road
Arlington, VA 22201

EXAMINER	
CHO, HONG SOL	
ART UNIT	**PAPER NUMBER**
2662	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/759,372	MCHALE, DAVID F.	
	Examiner	Art Unit	
	Hong Cho	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-4,7-10 and 15-17 is/are rejected.

7)☒ Claim(s) 5, 6, 11-14 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 16 January 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10042004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to because it contains an embedded hyperlink, which does not exist, on page 5, line 6. Applicant is required to delete the embedded hyperlink. See MPEP § 608.01.

For the purpose of clarity, "data element or data elements data items", "data link data items", "data slots or data buffer data items", and "at least one of the at least one channel" should be rephrased wherever appropriate.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 7-10, and 15-17 are rejected under 35 U.S.C. 102(e) as being unpatentable over Vadivelu (U.S 6629001).

Re claims 1 and 15, Vadivelu discloses a controller controlling audio channels by sending and receiving digital data streams at predefined time slots in a data link (*a controller controlling interfacing to a data link, the data link enabling data to be transferred in corresponding data slots*, column 1, lines 35-37). Vadivelu discloses a channel logic

circuit with an input FIFO to buffer input data (*each channel comprising a data buffer for storing data items*, column 4, lines 33-35). Vadivelu discloses a configuration register (*control register*) connected to the buffer in the demultiplexer to store configuration data (*control data*) (*a control register associated with the data buffer and arranged to store control data*, column 3, lines 48-50). Vadivelu discloses a configuration register controlling the demultiplexer with buffers that will be enabled by configuration data such as the buffer enable signal (*the control data being settable to define for which data element or data elements are to be stored in that data buffer*, column 5, lines 35-39). Vadivelu discloses a controller controlling data transfer between audio channels and time slots by the control data (column 1, lines 35-38; column 5, lines 19-21).

Re claims 2, 3, 16, and 17, Vadivelu discloses steering the channel outputs from the channel logical circuits to any of the audio channels as selected by the corresponding select field in the configuration registers, storing data to the enabled input FIFO buffer (*data buffer of the channel is arranged to store data items relating to one or more data items as specified by the control data*, column 5, lines 26-36), and generating data to the data steering circuit (*transmitting data retrieved from the data buffer to the data slots of the data link*, column 6, lines 2-7).

Re claims 4 and 8, Vadivelu discloses a channel logic circuit with configuration registers (figure 2) and an input FIFO as a queue to buffer input data received from the audio channels (*to store data items to be transmitted on the data link*, column 4, lines 33-35) and an output FIFO as a queue to buffer output data to be sent to the audio channels (*to store data items received from the data link*, column 4, lines 26-28).

Re claim 7, Vadivelu discloses a controller connected to the codec via the data link (column 3, lines 21-22).

Re claims 9 and 10, Vadivelu discloses a controller coupled to the system memory with data (figure 1, element 130) via a processor (figure 1, element 105). It is inherent that data will be transferred between the memory and the channel.

Allowable Subject Matter

4. Claims 5, 6, and 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent (6529975) to Miller et al discloses addressing and controlling expansion devices through an AC-link and a codec
- US Patent (6434633) to Braun et al discloses facilitating AC-link communications between a controller and a slow peripheral of a codec
- US Patent (5974480) to Qureshi et al discloses DMA controller which receives size data for each DMA channel

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hong Cho
Patent Examiner
10-04-2004

RICKY NGO
PRIMARY EXAMINER